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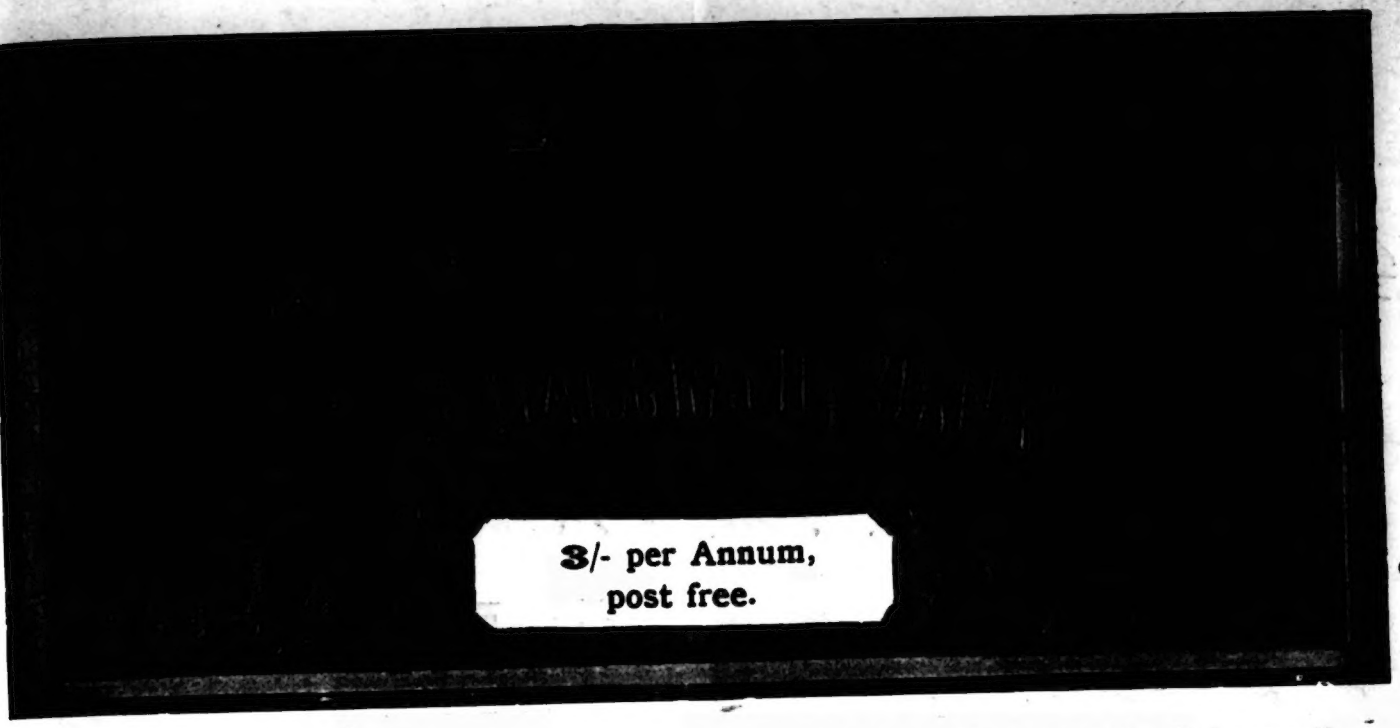

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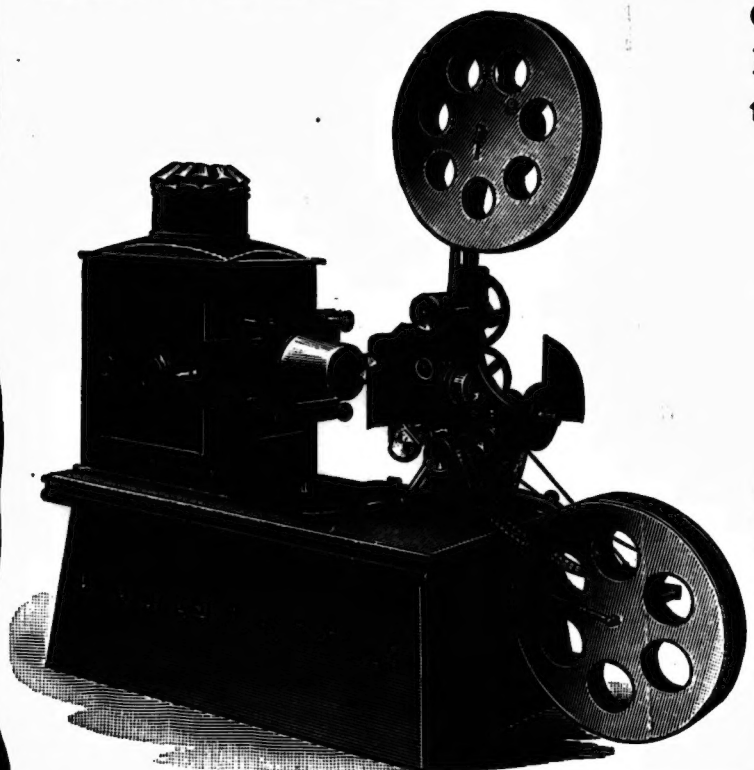

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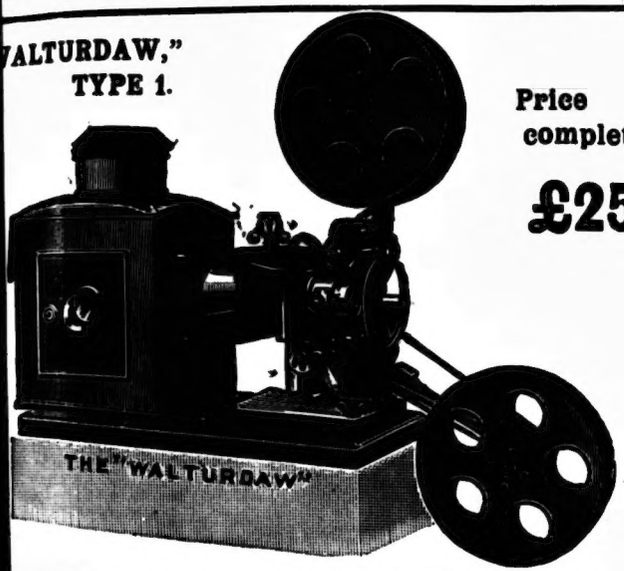

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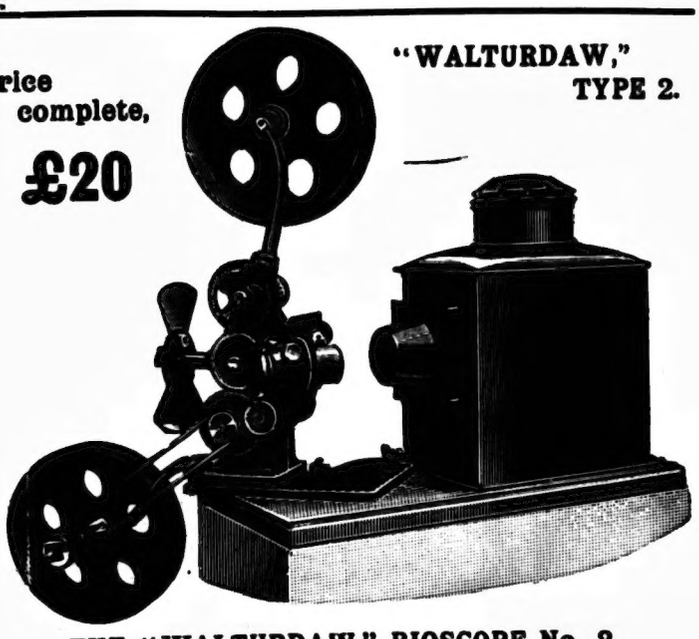

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WE are ever-moving in matters photographic. It seems only the other day Mr. H. Snowden Ward said, when exhibiting some beautiful colour slides, that although years had been devoted to the study of the art of colour photography, we were still only in the initiatory stages of this fascinating art. He stated that notable developments might be expected at any time. It would appear that his forecast is now *au fait accompli*. Messrs. Heath and Stoneman, photographers, of George Street, Plymouth, have for more than three years been engaged in exhaustive research, carefully studying the phenomena attaching to the methods already known in connection with colour work, and endeavouring to find something to eclipse previous results. The expenditure of time and money, combined with much patience and untiring energy, has met with remarkable success. Unlike their predecessors in the art of colour photography, who confined themselves only to presentments of still life, Messrs. Heath and Stoneman have produced some beautiful portraits from life, which in beauty of half-tone, delicate rendering of flesh tints and minute detail of colour value in dress and ornament, are as near perfection as possible. Placed side by side with a hand-painted portrait, the latter looks crude, garish and unlifelike. The process is a combination of several, with some new ideas incorporated.

FROM some enquiries made of Messrs. Heath and Stoneman, we learn that there is no reason why the results of this beautiful system of colour photography should

not in the future be applied commercially to lantern slides. The drawback at present is the great outlay which would be necessary, and lanternists must wait a little until some cheaper way of attaining similar results is invented.

✤

Dr. Walter Chase, of Boston, has been utilising the kinematograph to reproduce 30 epileptic convulsions, and students at his lectures are thus able to carefully study the action of the muscles of the afflicted person during the seizure. The optical lantern will doubtless be more and more called upon in the future for medical and surgical purposes, and by continually keeping its uses before the eyes of the medical profession, manufacturers will materially increase their trade in this direction. They should however remember the lesson obtained by a recent verdict in the Law Courts, where a doctor and camera man were sued by a patient for producing and circulating pictures of him in various stages of disease, and in which he obtained heavy damages.

✤

The Hackenschmidt and Madrali wrestling match, which was bioscoped by the Urbanora Co. at Olympia, was remarkable because of the comparatively quick time in which the loser was defeated. This curtailed the length of film, but the two falls, and in fact the whole contest, are clearly shewn, and the strong light thrown on the wrestlers, in contrast to the gloomy surroundings, has resulted in some weird effects, reminiscent of Rembrandt.

✤

The controversy, which arose over the allegation that Hackenschmidt used the "strangle-hold" grip, has been settled once and for all by the camera. A private display of the film was given to those interested, and the kinematograph held the post of chief arbitrator, and after the closest scrutiny of the film by those present, with stoppages for more minute examination, the charge was found to be without foundation. The importance of this demonstration of the versatility and great usefulness of the moving picture, in proving or disproving similar serious charges, cannot be over-estimated.

✤

Lanternists, showmen, and all connected with the kinematograph industry, will be interested to hear that a book written by Mr. Urban will shortly be issued, dealing exhaustively with animated photography. It will contain information on a variety of subjects, including that *bete noir* of the lanternist, the "Council" regulations, as applied in the principal cities and towns in the United Kingdom.

✤

The Sanger-Shepherd method of making lantern slides in colours was lucidly described recently at the Royal Photographic Society by Dr. Norman. His demonstration, accompanied as it was by a carefully descriptive explanation, made a clear impression on the minds of his auditors. It was an example of complete elucidation of facts which other lecturers would do well to follow. The overlapping of colour in the slides, a fault so frequently found in tri-colour work, was practically non-existent, the accuracy of the register of the three positives being so perfect. Most of the slides shown were photo-micrographic, so that the beautiful colour results obtained are all the more remarkable.

✤

Wheels in motion, when represented in a moving picture, appear to revolve backwards, at other times to stand still, and at intervals apparently have a swaying movement situated near the centre. The *Scientific American*, when reviewing some pictures, explains the reason as follows:—"In the case of a moving carriage, wheel rotation is suggested to the eye entirely by the displacement of the spokes. But here the kinematograph may be completely at fault. For instance, in one of the views, a spoke of the wheel occupies a well-defined position. In the following views, if the second, third, and fourth spokes are made

BRITISH MUSEUM

to occupy exactly the place of the first in their turn, the successive images of the wheel will not differ from each other. The spectator will therefore not have the sensation of the wheel's movement. According to the relative speed of the wheel and the projection apparatus, we may find that the successive spokes have a slight advance or lag relative to the position of the first one, and thus give the illusion that the wheel is turning forward or back as the case may be."

✤

We have no friendship for the dog that snarls and snaps without provocation, and do not care to see reputable firms throw mud at each other for the sake of being considered by the onlookers as smart. We have no desire to pass an opinion on the correspondence now appearing in our pages, but have always understood that the Charles Urban Trading Co., Ltd., is incorporated under British laws, backed by British capital. its directors and employees are British born, and that the whole combination have the utmost faith in their "Yankee Captain," who is devoting his entire energies and resources to still greater entire developments of the kinematographic art, to which he has contributed so much during the past ten years, much to the advanced enlightenment of the British public.

✤

The following appeared in the *Daily Mail*:—

"A New Kinematograph. — An invention, which promises to be an improvement on the old film kinematograph, is about to be patented. The pictures are taken in spiral fashion on circular glass plates, many hundreds of photographs being thus compressed into a small space. The diameter of the plate is about fifteen inches, while the photographs themselves are less than half-an-inch in length. Each plate is large enough for a 'story' to last three or four minutes. Very little apparatus is required to fit the plate to an ordinary magic lantern, when, by revolving the plate, the pictures are thrown on the screen. The inventor, Mr. W. H. Palmer, of Charing Cross Road, has spent over twelve years in bringing his work to completion."

Anxious to learn more we wrote to Mr. Palmer, but our letter was returned "Not known." Can any reader give further particulars?

Scenes from "The Train Wreckers."— Edison Manufacturing Co.

America and Moving Pictures.

By the Editor.

"WHAT is the state of the moving picture trade in America?" was the first question on our arrival in Great Britain. Very difficult is it to sum up an answer in a sentence, for each state or town has an entirely different treatment of the industry. The greatest lesson to be learnt over here is the readiness with which our American *confreres* combine effect with the plain sailing ordinary production. In some cases the "effect" makes more impression on the spectators than the actual pictures. We, however, speak of this in another article, and now give our ideas as obtained in the individual towns we visited.

IN NEW YORK

The film manufacturers were engaged in forming subsidiary companies for exploiting their wares, and were therefore busy producing sensational, comic, and trick films for the market thus created. They receive such a healthy demand for films that quick work is essential, and quality seems a secondary consideration. We believe the number of moving picture shows in greater New York exceeds that of the whole of England. Take the small popular resort of Coney Island. Here alone we counted over thirty moving picture entertainments to which admission was obtained by payment of five or ten cents. Each of these could accommodate sixty or seventy spectators, but should the "enticer" with the big voice, who stood at the entrance, only obtain two payments for admission, after these had waited five minutes the show would proceed. In some instances the same film was run through the projector sixty or seventy times a day, and consequently orders for a particular subject were placed for at least six copies, and these by constant wear needed frequent replacement. This state of things keeps the producers in a happy state of prosperity. Not only were moving pictures to be found at such resorts as Coney Island, but in the busy streets of New York and Brooklyn, shops of good depth were gutted and fitted for exhibition purposes. Of course at these the San Francisco film was a big attraction.

In New York we saw the heads of such firms as the Vitagraph Co., Pathé, Edison, Selig, the Poliscope Co., etc., and our conversation showed that the trade was in a rich state of prosperity, and money-making was the order of the day among the New York manufacturers.

CHICAGO

Has been defined as a place of tall buildings and low people: be this as it may, it unquestionably is a busy centre for the kinematograph. At most of the Vaudevilles, which correspond to our music halls, a short turn is given consisting as a rule of two or three comic or trick subjects —always the latest. We have, however, never seen worse operating. Sometimes the film would remain at a standstill, or the handle would be quickly rotated. This sudden burst of energy would be snccceeded by an equally absurd reduction of speed, showing the operator had little pride in results. Films scratched and torn, pieced together without any regard for continuity, were frequently to be seen, in fact, the whole of the exhibitions were to our mind a disgrace to the trade.

We had interesting chats about the state of business among others with Mr. Harding, the excellent head of the kinematograph department of the Edison Manufacturing Company. We expressed surprise at the low position the motion picture industry holds in numerous parts of the city, and suggested that it would be possible to educate the proprietors and the public to a better state of things. Mr.

Harding deplored the fact that it was not satisfactory, but did not see a possibility of raising the standard while there was the present steady demand for films, and the public paid their cents for admission. He admitted there was no demand for educational or technical subjects—the building of a railway would not appeal to Chicago audiences, but trick films, low comedy films, or those which had a slight tendency to indecency were allowed by the authorities, and were in great demand. The curious fact remains that sensational films are barred by the authorities. Such a film as "The Train Robbers" would not be allowed in Chicago. This condition of things is remarkable, inasmuch as the chief productions of this company are of the sensational class, and yet they are not allowed to be shown in what is doubtless the city of sensations.

Mr. G. Kleine, of the Kleine Optical Company, Chicago, is one of the best authorities on the trade in the town. His opinion, like Mr. Harding's, was that while the 10 and 5 cents showmen kept up the demand for trick and comic films the trade would continue brisk, and copying of films, which is done undisguisedly by manufacturers, will continue.

The customs duty on films unfortunately keeps English and Continental productions off the market, and consequently subjects are obtained by American houses and quickly copied and circulated without any respect for original proprietary rights. Mr. Kleine did not see that the standard of subjects could be raised or that educational films would become popular, and, as to some sort of amalgamation among the trade, it was as remote as the North Pole. Whilst the "Almighty Dollar" holds its indomitable sway these condition must prevail.

AT WASHINGTON

We found the Vaudevilles gave a better class show, but it lasted for a shorter length of time, and was given at the end of the programme. It was used as a fill-gap, to clear out the people, and this it certainly did to perfection.

The same might be said of Philadelphia, but we found here that the optical lantern was used in the schools and technical institutes, and there seemed to be a higher tone prevailing than in the majority of the other towns.

In Detroit, Buffalo, St. Louis, and Boston a similar state of things existed to that in New York, and the trade seemed to come in spontaneous rushes directly something new was produced by the manufacturers, each showman striving for precedence in obtaining the new subject.

In the Summer parks of Alabama, Arizona, Arkansas, Colorado, Connecticut, Illinois, Indiana, and many others, shows could be found, in fact it was frequently the case to find at least 20 moving picture exhibitions in one town, each having its own programme and in no way interfering with its rival's repertoire.

In Toronto, Hamilton and Montreal we saw better performances than in America, and there was some desire shown to elevate and instruct by using films with an educational side.

Reviewing the whole journey, we recognise that the trade is more active in every way than over here. Orders are certainly rushed through with a rapidity which prevents the best work from being accomplished, but the financial results are undoubtedly excellent. The majority of the operators we found knew little of the technical side of their work. In some towns one would find a number of operators working under a leading man, who had charge of the mechanical parts of the business. This "chief" was empowered to provide his own labour. He knew his work, did his own repairs, and was given a bonus on his savings in new parts and the life of films. Naturally he saw that those under him erred on the side of carefulness; at the same time he was apt to keep the films in use long after all attractiveness and beauty had disappeared. This "chief" boasted to us that he had run one film daily for over a month and that it was shown frequently 20 or 30 times a day. From curiosity we had him put that film on, and such a botch of mixed-up pictures, scratched and disfigured rubbish, we had never previously seen projected. Such business as this may bring money quickly, but it brings no recomendation, and will ultimately, in our opinion, be disastrous to our trade. People will not waste their time to see such rubbish, and we should dearly love our friends on the other side to witness some of our productions in the London halls.

MECHANICAL EFFECTS AND MOVING PICTURES

A PROFITABLE INNOVATION.

By the Editor.

ALTHOUGH moving pictures are a feature of the entertainments in the U.S.A., the latest departure has doubly popularised them. Mechanical surroundings have been introduced, which in themselves are marvels of originality and appeal to the craving for "something fresh," which is essentially a trait in the character of the American people. The idea has been to surround each subject with the characteristics peculiar to it, and these, combined with the pictures, make a wonderful impression on the minds of the spectators, the realism being so great that it is almost impossible to define where the actual illusion starts and where the reality finishes.

In many towns a store has been gutted and the stranger is surprised to find what looks like the rear of an American train. Piles of luggage, signals, the inevitable bell, the ticket collector, collector's hopper, men in railway uniform, the Pulman conductor, and other etceteras that make up a railway depôt are there, and the stentorian tones of the conductor "All aboard for San Francisco" or whatever other place is to be visited, add a realism that makes one ask how it is that cars are allowed to start from the ordinary roadway. By paying 10 cents for a ticket and mounting a rear-door, one finds himself in an ordinary long travelling car capable of seating 60 to 70 people, two abreast, all facing the engine, with a corridor running down the centre. Gauze blinds cover the windows, lamps are protected with the usual globes, advertisements appear on the upper sides of the car, racks for sticks and umbrellas, precaution cords and every conceivable attachment that a car has, make one feel they are starting on a lengthy journey. Suddenly the whistle sounds, the clanging bell, which every American engine carries, the sh sh of escaping steam, the rattle of wheels and the jolting of the car make one still more convinced. Suddenly, as though a window is opened in the front of the car, a panorama is presented, beautiful scenery is passed, and the conductor of the tour shouts out through a megaphone the various points of interest that are passing. As each turn in the rail comes to view the car rocks with an effect that makes one hold his breath, the whistle is sounded in entering tunnels, in fact, the whole show, were it not for the frequent bad films that one meets, makes it impossible to bring the mind back to the fact that we had not gone farther than Broadway.

But this ingenuity is not confined to the imitation of a railway journey. One sees, in another vacant spot, apparently the rear or front of an auto car. There is the horn, the lamps, the steering gear, the body on wheels, in fact, practically one of the huge auto cars that are utilised in the States for taking forty or fifty people on a tour of sight-seeing. Here, again, the heighth of realism is reached. Tours of all the chief towns, such as London, Paris, Berlin, Rome, New York, Washington, Boston, are met on the screen, and are accompanied by mechanical effects

that add a realistic charm to the tour, in fact, the idea is carried so far that, by means of electrical fans, the impression of being carried through air is so extreme that we hold our hats and breath and wonder what is to happen next.

Matters, however, do not stop on the earth, for just before leaving the States we were enabled by the moving picture to travel in a balloon over New York. At a huge structure on Coney Island can be found what looks to be the entrance to a balloon shed. Inside is the car containing the various instruments for recording heat, height, etc., anchors, drag ropes, sandbags, provision bags, and many other items add to the effect. After mounting the car, which has two galleries, the people sitting round, look over and apparently down on to Mother Earth, and see stretched under them the city with its river and floating and moving population. Points of interest, such as the Flatiron Building, the Thirty-two Storey Building, the churches, etc., can be located, and the effect of the balloon swaying every now and then, thus causing the car to go quickly over a certain piece of ground and then return to its upright position (caused by a sudden movement of an individual in the car), is so realistic as to be almost painful.

This idea has been developed after much thought, and required the bravery of two individuals, who nearly lost their lives in obtaining the views. Leo Stevens and Tracy Tisdell proposed to take moving pictures for this show, and ascended at half-past two from the Union Gas Works, at 138th Street, in a balloon of 25,000 cubic feet capacity. They took with them one of the finest cameras that it was possible to obtain, and, driven by a brisk south-easterly wind, the balloon was borne towards the Hudson. All went well until it passed by Yonkers, when suddenly, through the cooling of the gas in the bag, in an eclipse of the sun by a huge bank of clouds, the balloon dropped from 1,400 feet to 650 feet, and the throwing of ballast availed but little, and the contrivance whirled round the cliffs of Bombay Hook Point. It became uncontrollable, and shot downwards into the midst of the jutting rocks of the Hudson. Caught by a strong current all went into the water, Stevens and Tisdell, clinging to the basket, were dragged through the river across dozens of dangerous projecting rocks for about 2,000 feet. Scores of people rushed to the scene, and fortunately among these was Samuel Quinn, who put off in a launch, and guided his craft through the rocks and rescued the men from the basket. Tisdell turned the crank of his picture machine up to the very moment when, in trying to throw it on a ledge of the cliff, he only succeeded in dashing it to pieces on the rocks below. Of course, their original hopes seemed swept away, but a strip of 700 pictures was developed, and, in spite of its soaking, were found to be fairly good.

Notwithstanding the sudden succession of events, when the balloon fell Tisdell found time to close the watertight bag of films. He had been on the point of lowering it to the ground with a rope when the anchor fastening gave way. The bag was dragged over the rocks and torn open, so that it was no longer watertight and the films were soaked, but fortunately some parts made excellent pictures, and these were duly exhibited on the apparatus specially made. Nothing daunted by this experience, another attempt was to be made to obtain suitable views just before we sailed, and doubtless by the time these lines are written the pleasure seekers on Coney Island will have experienced all the sensations and dangers of travelling in the air without any attendant evil results.

Scenes from "The Madman's Fate."—Mr. R. W. Paul.

THE MONTH'S NEW FILMS.

THE past month has been one of the busiest known amongst film makers, so many events of public importance having occurred, and the speed with which the events have been photographed and reproduced on the kinematograph has been remarkable. Of course, the calamities at San Francisco and Naples have been amongst the most striking occurrences, and operators have vied with each other in securing pictures giving faithful representations of the scenes of devastation. The Olympic Games at Athens have also had their full share of attention, the pictures taken by one firm, who enjoyed a monopoly, being excellent, conveying the most realistic conception of the scenes in the arena. "The Derby" has been faithfully reproduced with more than usual detail, whilst the number of domestic, supernatural, sensational, and humorous films has been much above the average, and tends to show what a firm hold moving pictures have upon the pleasure-loving and amusement-seeking public.

Mr. R. W. PAUL, 68, High Holborn, is once more to the fore with a really excellent series of pictures, entitled "The Lover and the Madman." The first scene shows a young man and girl sitting on a stile in a country lane, when a messenger appears with an urgent note which summonses the man away, the girl remaining behind alone. Presently an escaped lunatic comes along and endeavours to make love to her. She repels him. He becomes angry and commences a violent struggle with her, in the midst of which the lover returns as the madman is about to stab the girl. A desperate fight occurs, and the lunatic is killed. The lover escapes from the scene, the girl urging him to fly for his life. The messenger, who witnessed the affray, gives the alarm to the police, who speedily commence an exciting man-hunt, which is depicted in a series of realistic scenes. The lover is eventually secured after a terrific struggle, and led off to prison. His trial for murder takes place, the closing scenes showing the acquittal and subsequent wedding in an up-to-date style, all the guests being taken to church by motor-car. This is a most realistic film and should should prove a thorough success. The incidents are shown in a quick and graphic manner, the court scene especially being a masterpiece of stage craft. We show three of the principal scenes,

which give an idea of the exciting nature of the film.

MESSRS. CRICKS & SHARP, 7, Great Queen-street, W.C., have several new films this month, which, although unpretentious in style, are yet amusing and of a taking character. Their latest film is entitled "Father's Derby Tip" (which by the way did not "come off"), and deals with a telegram received at the breakfast table, which inspires the whole family with a gambling mania. The father is deputed to invest the money; the horse wins, father treats his friends on the strength of his win, but unfortunately the bookey has flown, and the scene ends with the unfortunate backer's warm reception at the hands of his wife and family. Other new films are "Slippery Jim," and "The Animated Dress Stand," each of a humorous character.

THE WALTURDAW CO., LTD., 3, Dean-street, W.C., have some remarkable films of Indian Life, taken by their own operators, which, for their educational importance alone, should cause a ready demand. They embrace almost every phase of Indian life, and give an impression of native observances that have never been put before the public in animated form. A long film is devoted to the celebrated "River Ganges," the Hindoo's waters of immortality, showing all the phases of Hindoo worship, together with a realistic picture of the "Burning Ghats," where the natives are cremated, the burning bodies being clearly seen. This is a most impressive picture of Hindoo life. "Idol Worship" is another film, showing the various modes of Indian worship, and depicting in gruesome detail the horrible self-imposed tortures of the worshippers. The smaller films show various forms of Indian life, "A Street in India," "A Procession of Lepers," "Sacred Bathing," "Caste Marks," "Scenes at the Mahorrain Festival," "The Devil Drivers," "Sacred Elephants," etc. "The Tea Gardens of Ceylon" is a magnificent film, showing every operation and process from the picking of the leaf in the tea gardens to the loading of the finished article for shipment. These scenes were specially photographed at the request of the Tea Planter's Association, and under the direct patronage of the Ceylon Government. The whole series show an amount of detail and carefulness in development that should certainly command an enthusiastic reception, being, as they undoubtedly are, amongst the best educational animated pictures yet before the public.

THE EDISON MANUFACTURING CO., LTD., 25, Clerkenwell Road, E.C., have, as we briefly noted last month, produced another film that bids fair to rival their celebrated "Train Wreckers." The title of this new film is "The Dream of a Rarebit Fiend," and is on different lines to the usual productions of this firm. The opening shows a young man, evidently "one of the boys," winding up a night's dissipation with a Welsh rarebit and a few bottles of Bass. He fills himself to repletion, and then starts homeward in a decidedly top-heavy condition. After leaving the restaurant he stumbles and staggers along the street until he comes to a lamp-post, which, however, he is unable for some time to reach. Everything is in a whirl. Finally, he throws his arms around the post, from which position he is rescued by a friendly policeman, who, after a rough and tumble wrestling match, conveys the rarebit fiend home. Then the fun commences, the scenes that follow being beyond adequate description, and the spectator is full of wonder how the marvellous scenes are produced. We can only briefly mention a few of the startling effects. After getting into bed the dreamer, suffering from too much Welsh rarebit, sees everything around him become animated. The chairs and tables play all kinds of pranks, and finally disappear. The bed comes to life, and, spinning round the room like a top, finally shoots through the window. Then succeeds a marvellous and beautiful panorama of a city at night. Suddenly the bed gives a lurch precipitating the occupant through space, he being finally caught on the vane of a lofty church steeple, which spins him round and round. He falls, and the final scene shows him crashing through the ceiling of his bedroom, and his awakening proves that his adventures were but a dream. The daring effects and the beautiful development of the various scenes will, we venture to say, place the "Rarebit Fiend" amongst the most successful money-making films of the day.

MESSRS. GAUMONT & Co., Cecil Court, have some splendid new films this month, one of the most realistic being a complete set of pictures showing the result of the San Francisco Disaster. The scene depicts the devastating scenes in a very impressive manner. "The Olympic Games at Athens," secured by special rights from the King of Greece, contain over 2,000 feet of film, showing all the important features of the Olympic Games, besides many unique incidents. A film that is full of incident and excitement is "Lost: A Leg of Mutton." This should prove an attraction to any audience, as the interest never flags, and contains an even balance of pathos, sentiment, and humour. Amongst this firm's latest production is a humorous film, entitled "How they Killed the Cat," which gives more than the proverbial nine lives to pussy, every attempt at extermination being futile until a solo on the violin is tried with unhappy results to the cat.

Round and About.

Polar Expedition.

Is it a fact that Mr. Barker, of "Whaling" fame, is joining the Wellman-Chicago-Record-Herald-Polar expedition? We believe he has already taken views of the motor sledges, airships, and impedimenta to be used in the travels.

The Spanish Wedding

Is the event of the month. All the leading operators could be seen struggling with Spanish and endeavouring to obtain advantages over one another in positions.

Dom Perosi,

Like other composers, has fallen foul of the kinematograph. Some days ago a flaring poster in Rome announced a kinematograph performance, by "kind permission of the composer," of Perosi's "Life and Passion of Christ." Perosi saw the poster, and as the announcement of the composer's "kind permission" was news to him, he promptly called for explanations.

Africa in Bioscope.

An expedition under the leadership of Brian Bellasis and Lional Cooke is leaving London with the object of obtaining bioscopic records illustrating the wild life and the industrial activities of countries along the entire route of the proposed Cape to Cairo railway. Though the enterprise is mainly commercial, and has the support of many of the most important African companies, it is hoped that it may accomplish something of scientific value.

Japanese Lantern Slides.

Members and friends of the Japan Society, recently displayed much interest in a series of slides brought from Japan by Mr. M. Sawayanagi relating to Japanese education, and shown through the epidiascope. Mr. Goji Ukita explained the pictures, which illustrated every department of educational work, scientific study, physical exercise, and military drill. Mr. W. Crewdson, who presided, described them as the most successful views that he had seen, and invited questions, which were answered by Mr Ukita. Asked whether the Japanese schools were designed on the American plan, he said they were modelled on the English, French, German, American and other styles. (Laughter). He illustrated the vast changes made during the the last 40 years by giving pictures of educational work in an earlier period.

The Result of Thirty Years

Of amateur photography in Southern India were shown by a large, interesting, and technically commendable series of lantern slides, at the Royal Photographic Society, by Mr. F. Dunsterville, F.R.P.S. An appreciative audience had the pleasure of inspecting a splendid collection of pictures of native tribes, habitations, temples, customs, flora, fauna, and scenery. The district covered was one which embraced regions all but unknown to Europeans, and certainly never visited by the mere globe-trotter, including from Malabar to the Northern part of the Carnatic. Special interest was attachable to the many types of races and castes which he had photographed, ranging from the hardly-known "sky-clad" tribes to the more familiar Nautch dances.

"The Daily Bioscope"

Savours of the same idea as the popular cheap steel shows, which are the rage in America at the present time, and opened its doors at 27-28, Bishopsgate-street Without, on May 23rd. Its aim is to portray important events from day to day, and it guarantees "constant change and everlasting variety" to its patrons. The venture, we believe, has proved a success, and other developments may shortly be expected. Messrs. L. Gaumont & Co. have supplied the apparatus by which the pictures are projected, and are under contract to show the newest and best films. The shows last from 20 minutes to half-an-hour, and waiting is reduced to a minimum. The auditorium is most comfortable, and is upholstered throughout in red and gold. There are fauteuils for the front seat patrons, and chairs at the back, and full houses seem to be the rule, admission being obtained for 4d and 2d. respectively. The idea has evidently caught on, and the numbers who witnessed the Derby film on the evening of Derby day doubtless came again to see the Spanish wedding film. The luncheon hour is an exceptionally busy time, and we expect to see other branches quickly started elsewhere.

THE OPTICAL PRINCIPLE OF A LANTERN.

By J. Hay Taylor.

Continued from Page 131.

In cases where the illuminant is (so to speak) a point such as the limelight or electric arc, then many consider that the Herschel form (fig. 13) possesses advantages.

Many years ago two lenses of somewhat long focus, and shaped as in fig. 12, were employed, but this form has been long since relegated to the past.

These forms, when placed near the illuminant, are capable of collecting a fairly large cone of rays, that lens next the light serving as the collecting lens and also for transmitting the rays to the second lens whence they are bent and converged towards the objective, as in fig. 1.

FIG 12

FIG 13

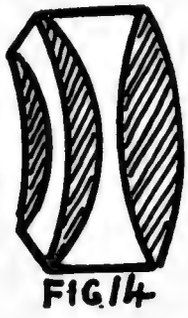


FIG 14

The distance of the illuminant from the condenser governs the angle at which the rays are sent on towards the objective, after the style of the principle explained with the two rules in Fig. 9.

Another form of condenser is that known as the triple, Fig. 14. In connection with microscopic and other scientific work it possesses many advantages, inasmuch as it is capable of collecting a greater angle of light. For ordinary projection work it is, however, seldom used, so we can in the meantime dispense with further remarks upon it.

The best condensers have their lenses ground to a sharp edge, and those which are ground to a blunt or abrupt edge are inferior to the former.

The lens next to the illuminant will of necessity get very hot, and hence it is very desirable that it be mounted very loosely in its cell, for if at all tight it will, in expanding with the heat, get what is known as cell-bound, and a crack will probably result. A good method for preventing this was adopted, about ten or twelve years ago, by some American firms, who held this lens in its position in its mount by three or four spring clips or spring rebates, which allowed for both expansion and also ventilation. This principle, although introduced in America some twelve years ago, and also advocated and illustrated in this country by the writer, has only just been commercially adopted here within the past few months.

So far we have followed the collecting of the rays and their transmission to the objective. It is the objective which causes the image of the slide to be formed upon the screen, and the light and condenser merely play the part of properly

illuminating the slide, and transmitting the rays in proper form to the objective. An objective for the lantern should be free from spherical aberration, have a large working aperture, and be properly corrected as far as the visual rays are concerned.

These qualities are found in the combination of lenses when well made known as the Petzval system, of which an illustration, not, of course, to scale, is given in Fig. 15. This objective consists of a combination of four lenses mounted in a tube. Commencing at the left hand side of the

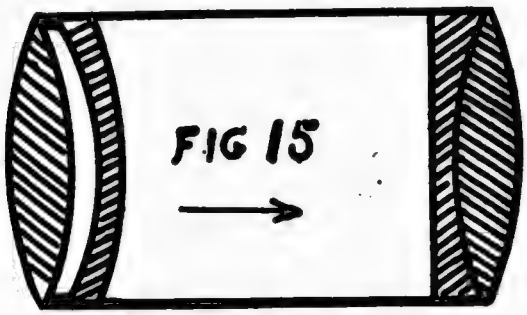


illustration we have a crown glass (magnifying) in close proximity to a flint glass (diminishing), but slightly separated by means of a thin brass ring. Then at some distance there is a flint and a crown glass cemented permanently together. It is well to take particular notice of the order in which those lenses are inserted in the mount, so that should they be taken out for any purpose, such as cleaning, they may be placed back in their correct order.

Referring once more to the remarks on conjugate foci, the function of the objective will be understood if we can imagine the lantern slide which is placed close to the condenser to be studded all over with small specks, each speck representing the conjugate foci of one side of the objective, whereas the other is represented by the screen itself on which the projected slide will be reversed. It will thus be apparent that the objective must be placed at a certain distance from the slide and the screen at a given distance from the objective. In practice, however, a great latitude is obtainable with regard to adjusting the correct focus by racking the objective closer to or further from the slide.

Respecting the distance at which the objective should be from the slide, this may be approximated according to the focus of the lens or objective employed, thus, if the objective be 8 inches focus, it should be adjusted to about eight inches from the slide; if ten inches, ten inches away, and so on according to the focus of the objective. On the lantern front itself, where the lens is screwed, will be found a draw tube which will facilitate this adjustment. The fine focussing can then be done by means of the rack and pinion of the objective.

Of course, according to the size of the picture required on the screen, so must its distance be adjusted, but as the screen must be considered as a fixture it is the position of the lantern with regard to it which must be altered, and the question is how to find this out? This is by no means a difficult matter, and the lanternist will be wise in copying out the following and sticking it on the inside of the lid of his lantern case for reference until he is able to make his calculations without it.

Let A represent focus of objective, B diameter of slide opening (3 inches), C the size of disc on screen, and D the distance between lantern and screen. If we know any of the three factors it is a simple matter to find the fourth—thus:

$$\frac{D \times B}{A} = C \qquad \frac{C \times A}{B} = D \qquad \frac{D \times B}{C} = A$$

For the sake of illustration, we have an objective of 6 inches focus, and have planted the lantern 20 feet from the screen. What will be the size of the projected picture?

$$\frac{D \times B}{A} = C \text{ or } \frac{20 \times 3}{6} = \frac{60}{10} = 10 \text{ ft.} \left\{ \begin{array}{l} \text{size of} \\ \text{picture.} \end{array} \right.$$

If we require a picture 10 feet in diameter, and possess a 6 inch focus lens, where must the lantern be placed with regard to the screen?

$$\frac{C \times A}{B} = D \text{ or } \frac{10 \times 6}{3} = \frac{60}{3} = \left\{ \begin{array}{l} \text{20 ft. between} \\ \text{lantern \& screen} \end{array} \right.$$

The only suitable place for the lantern is in a gallery 20 feet from the screen, and a 10 foot picture is wanted. What focus of lens must be used?

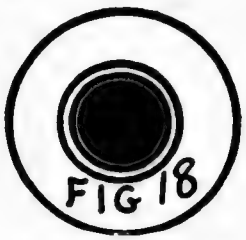
$$\frac{D \times B}{C} = A \text{ or } \frac{20 \times 3}{10} = \frac{60}{10} = 6 \text{ in focus lens.}$$

Should one have an objective, the focus of which he does not know, this may be

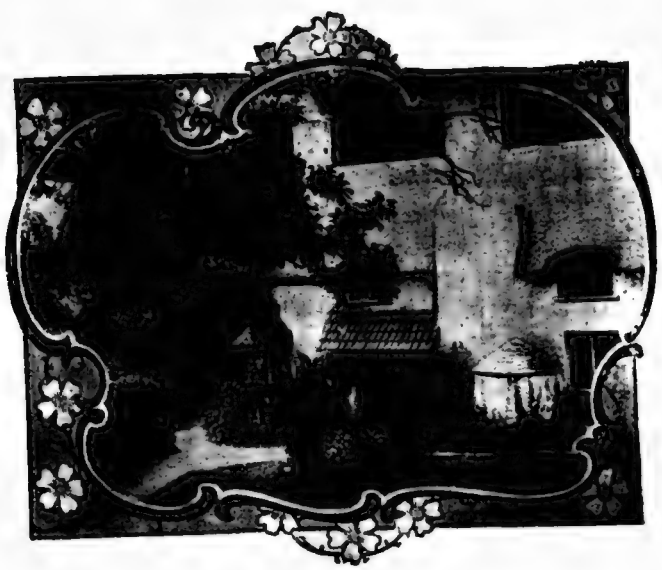
ascertained as follows: Pin a sheet of writing paper on the wall of a room opposite a window, and hold the combination objective with its front towards some distant object, such as chimney pots on an opposite house (strictly speaking we require parallel rays, but those coming from an object about fifty feet away are sufficiently parallel for our purpose), and move the objective until a sharp image of the chimney pots is depicted on the paper. Measure the distance between the paper and midway between the lens

combination, and this will represent the equivalent focus. It will be found convenient to rest the objective on a foot rule, the end of which is held to touch the paper.

It is necessary that the lantern illuminant be placed in the optical axis, else will the projected disc upon the screen not be bright and evenly illuminated. With a large flamed illuminant there is much more latitude than when a small point of light is employed, such as limelight, so great care must be taken to ascertain that the illuminant is not only central, but also at the correct distance from the condenser. When the illuminant is placed too high, a shadow will appear on the screen in the position shown in Fig. 16. Should it be too low, a similar shadow will be seen in the position indicated in Fig. 17. The same applies should the illuminant be too much either to the right or left, and in each case the light should be moved in the direction away from the shadow.



When a dark patch, as in Fig. 18, appears in the centre of the disc on the screen, it denotes that the light is too close to the condenser, and when a dark halo, as in Fig. 19 appears, the illuminant is too far away from the condenser, the remedies for which are obvious. These adjustments may cause a certain amount of anxiety to the beginner, but an experienced operator can centre his light in a few seconds.



[Letters which are of general interest to our readers are always welcome. They should be short and to the point, and must be accompanied by the name and address of the writer, as a guarantee of good faith, though not necessarily for publication. The Editor is not responsible for the opinions of his correspondents.]

WHAT IS AN ALIEN?

EDITOR, "OPTICAL LANTERN AND KINEMATOGRAPH JOURNAL."

SIR,—*Re Military Mail* article of April 6th (p. 122, your journal), I noted an extract reprinted from above paper in your May issue, and beg to advise that the misapplied term of "Aliens" is directed at myself and our Mr. J. G. Avery, who are referred to in a letter (herewith) from Mr. Ernest Polden to Mr. George Scott, *re* "Dreadnought" incident.

It would interest me to learn :—

What is an Alien? I had always associated this term in my mind with an unkempt Russian refugee or other unwashed foreign criminal or pauper who seeks an asylum in England, but *never with an American gentleman* (which latter distinction even Mr. Polden conceded in referring to me in his letter to Mr. Scott).

Is Mr. Polden a qualified photographer, and even if he had been granted permits, *re* "Dreadnought," would he have been able to produce successful results? (Mr. Polden is a printer and Director of the Palace Theatre.)

Why did not Mr. Polden (who had the exclusive kinematograph rights for the Military Tournament last year at the Agricultural Hall, Islington, and to my knowledge exposed thousands of feet of film) *show a successful result to the public?*

Why does Mr. Polden (who has the exclusive Kinematograph Rights at Olympia—Military Tournament—this year) hand over the work to an "Alien" Firm?

Why does Mr. Polden, "the Champion of British Rights" (member of a firm of English printers), *turn over certain printing work to a firm of foreign printers?*

And *does Mr. Ernest Polden now run His Majesty's dockyards at Portsmouth, and is he in a position to countermand any orders of the Admiral Superintendent, or the Lords of the Admiralty?* Information on this point would be of great service to me, as I shall have no doubt occasion in the near future to again apply to the dockyard authorities for photographic permits, on behalf of my Company, and do not want to be turned away at the dockyard gates at the last moment by Mr. Polden, the self-constituted guardian of His Majesty's Works; or

Are Mr. Polden's pretensions merely advanced from selfish motives and desire for personal gain?

This is what I want to know. Yours faithfully,

C. URBAN, Managing Director,
The Charles Urban Trading Co. Ltd.

May 30th, 1906.

FILMING ATHENS' SPORTS.

EDITOR, "OPTICAL LANTERN AND KINEMATOGRAPH JOURNAL."

SIR,—Noticing that a number of other manufacturers have claimed various concessions, etc., in respect to the Olympic Sports at Athens, we venture to call the attention of your readers to the fact already noted by most exhibitors, that the sole and official rights for kinematographing the events in connection with these sports were reserved to this firm, and no other bioscope camera was allowed in the arena, etc., beyond those in use by our operator. The first series of our pictures in connection with these sports, which we issued a day or two since, are now showing at the Palace Theatre, Shaftesbury Avenue.

Yours etc.,

per pro L. GAUMONT & CO.,
A. C. BROMHEAD, Manager.

LIVING PICTURES AS STAGE SCENERY.

EDITOR, "OPTICAL LANTERN AND KINEMATOGRAPH JOURNAL."

SIR, –About a year ago, at a special performance for the benefit of Pearson's Fresh Air Fund, held at the Coliseum, a short sketch was produced, the scenery of which was supplied entirely by animated pictures specially taken for the occasion. I have not heard of the methods employed for the projection of the pictures being explained in any magazine, but it has often occurred to me that a well-written descriptive article dealing with the matter would be of immense value to your numerous readers, as, if this can be accomplished without very great difficulty, a new field would open up for the lanternist in the supply of scenery for children's entertainments, operettas, cantatas, etc. Trusting you may see your way to take the matter up in your valuable Journal.—Yours, etc.,

PROGRESS.

CLEANING FILMS.

EDITOR, "OPTICAL LANTERN AND KINEMATOGRAPH JOURNAL."

SIR,--An article on cleaning and repairing kinematograph films would be acceptable by many of your readers just now, while they are quiet.—Yours truly,

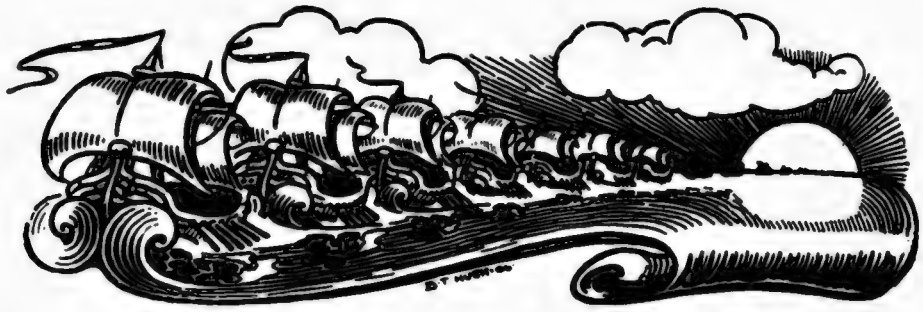
H. B. HURST.
23, Sadler Gate, Derby.

[We have commissioned an authority on this subject to give us an article which we hope to shortly publish.—ED.]

J. DYSON, Southport.—An article on the electric light, as adapted to optical lantern work, will appear in our July number.

J. B. L.—We do not know such a firm, but advise you to write to a well-known slide maker, who will readily supply your requirements. State the price you would go to for the colouring.

T. BESSANT.—We do not advise you to buy a projector for your old lantern. The cost of the complete article is now reduced to so low a figure that it will pay you far better to get a thorough article instead of a botch.



POSSIBLE IMPROVEMENTS IN LIVING PICTURES.

By Theodore Brown.

THAT there is room for improvement in the manufacture and exhibiting of living pictures must be apparent even to the non-technical and casual observer.

Up to the present, chief attention has been devoted to the subject matter, often, we think, to the partial neglect of paying particular attention to the technical quality of the pictures. There are signs, however, that a change is about to be made, and if the living picture is to retain its widespread popularity and become more and more a permanent source of amusement, education, and of historic value, the sooner this change takes place the better.

It may be remarked in passing that some recognised system of classification is desirable, so that the records of topical and actual events of historic importance may be distinguished from the staged representations of past happenings and fictional imaginations. But to return to the question first mooted. After ten years of practical experience with the tastes of the various classes of the community, the manufacturers should know the exact kind of subject to reproduce, and, having come to a definite conclusion on this point, they should have time and money to expend on technically perfecting their productions. Doubtless they will find themselves face to face with difficulties, which, without being insurmountable, will tend to severely tax their ingenuity and patience. The ultimate reward awaiting them is, however, well worth the seeking.

Fifty per cent. of the present day living pictures are exhibited in a disgraceful manner, whilst their quality and finish can scarcely be said to favourably compare with the first products of the amateur photographer with his one guinea outfit. This class of film may yet live for a while in the lower class music halls and travelling showman's tent, only, perhaps, because of the debased minds of the audiences found in these places, who appreciate that which is racy, vulgar, and entirely of a questionable character. To the refined mind and greater intelligence, how undesirable from every standpoint is the recreation of such material.

In some articles published in the first volume of The Optical Lantern and Kinematograph Journal, we pointed out a few ways in which better results may be secured, and to those hints we may venture to add a few more suggestions.

OPERATING THE CAMERA WITH GREATER SPEED.

The recognised speed desirable for operating the Kinematograph Camera has been stated as two turns per second, each revolution taking eight pictures, so that we have sixteen pictures per second. The speed which all pictures should be passed through the projecting apparatus is exactly the same as that at which the original negative was taken. There are, however,

a few exceptions to this rule to which we shall again refer.

There are several reasons why the speed of sixteen pictures per second has been adopted. First, because the speed or sensitiveness of the chemical emulsion hitherto used could only be sufficiently affected at the rate of exposure to the light under normal conditions. Secondly, because the mechanism for passing the film through the camera was designed only for such a speed without damage being done to the film; and, thirdly, because it was considered desirable to keep down the cost of production by using as short a piece of film as possible for each subject.

The latter consideration is one of no small importance, insomuch that expense extended not merely to the negative, together with its development, but also to every positive picture printed therefrom.

In view of the apparent desirability of adding every possible improvement to the art of kinemaphotography, we shall now venture our first proposition, namely, that

A LARGER NUMBER OF PHASES

of every subject photographed shall be included in the series. This means, of course, that on every subject additional film will have to be expended. We can quite understand, indeed we anticipate, that many objections will be raised to this new departure; but before beginning to count our losses, if any there shall prove to be, let us consider for a few moments, what advantages and improvements will be gained.

In the first place, it may be said, we shall gain something by losing some of the objectionable defect now so frequently found in many films. Let us suppose that henceforth, instead of taking only 16 pictures per second we take as many as 24. Our costs throughout, from negative to finished print, will increase exactly one-third; but against this we may set the following advances:—

1.—Practically flickerless projections.

2.—Dismissal of all jerking movements in the subjects.

3.—More realistic results than as yet have been obtained.

Assuming that the speed or sensitiveness of our film stock for negatives has reached its highest efficiency, it stands to reason that our exposures must not be shortened; hence it is that the manufacturer arrives at his first difficulty, namely, that of carrying the film through the camera at a much greater velocity without tearing the film or shortening the intermittent rest necessary for the exposures. This means that his mechanism requires some slight modifications from its present design. But, after all, this is merely a mechanical problem, by no means insurmountable, so that we may pass on to our next point.

THE IMPRESSION OF CONTINUOUS MOVEMENT.

The impression of continuous movement, as gained from the best living pictures, may only be maintained when the subject includes no very prominent objects or figures in the immediate foreground. Under the ordinary conditions of 16 pictures per second, an objectionable jerky movement is apparent in all subjects where large objects are seen to pass across the field of view, and at right angles to the camera lens. The reason is that in such subjects, viewed in nature, we perceive a much greater number of dissimilar phases than are obtained and presented for view in the kinematograph. Hence, if we adhere to the number of 16 pictures per second, then we are limited in our selection of subjects, if the same are to be reproduced without the above defects. The moving figures may not come within twelve feet distance from the camera.

On the other hand, by taking 24 phases (pictures) every one second of time, we take a step in the right direction towards technical perfection and dismiss the possibility of being troubled with this optical phenomenon.

The same may be said with reference to subjects including moving vehicles, the apparent reverse revolving of wheels, or their momentary sliding without showing movement in any direction except horizontally, may be corrected, or at any rate the defect eliminated to a very great extent, if not altogether dismissed. In short, the simple addition of eight pictures to the number usually taken

within the space of one second, will be found to work wonders in this and many other ways towards more perfect results and impressions; and although necessarily accompanied by additional requirements, will more than pay the enterprising manufacturer who ventures upon a practical exploiting of our suggestions.

A little reflection on what has been done in the past, bordering on the actual practice of such departures, will suffice to show that what we have said is not without logical foundation. Take for instance that Indian picture, "The Delhi Durbar," we do not remember for the moment who is responsible for this production, but it admirably illustrates our point in question.

When we first witnessed this picture projected upon a screen in the usual manner, two things became evident—the beautiful *continuity of movement*, and another thing not so admirable perhaps, the very slow rate at which the procession seemed to be passing. The fact is, the exceptional climatic conditions permitted of an exposure below the normal, and the pictures were taken about 24 per second. Thus, what we have been advocating was accidentally carried into practice, but with a very different object probably; for it is more than likely that the operator feared over exposure under the intense light, and had no other means of reducing his exposures. Be this as it may, anyone witnessing this view cannot fail to perceive the excellent results, embracing not only, as we have already intimated, continuity of movement, but also a decided advance towards flickerless projection.

(*To be continued.*)

The Photographic Convention

At Southampton, from July 9th to 14th, bids fair to be very successful. It is under the presidency of E. J. Humphrey, Esq., M.A., and the Mayor and other notabilities of Southampton are taking an active interest in the proceedings. Several leading French photographers, including Messrs. A. and L. Lumiere, will make their first visit to England to ake part in the Convention, and the programme ncludes a chat by Sir Benjamin Stone, M.P., with lantern slides, and a lecture by Mr. Martin-Duncan on "The Application of Kinematography to Natural Science." Sir W. de W. Abney will exhibit his slides, and Capt. Lascelles Davidson and Mr. W. Friese Greene will show kinematograph colored films.

Have you seen

VOLUME I

of the

Optical Lantern and Kinematograph Journal.

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FOR SALE.—"Prestwich" Kinematograph Camera and Printer, Model 4 fitted Dallmeyer Stigmatic Lens, 3 changing boxes and strong case. Almost new; cost £45, accept £20 or near offer.—M.C., 271, Upper Street, London, N.

NEW FILMS.

The Tell-tale Telephone. Length 325 feet. Price £8 2s. 6d.

Attack on Agent, an Irish Eviction Story. Length 540 feet. Price £13 10s.

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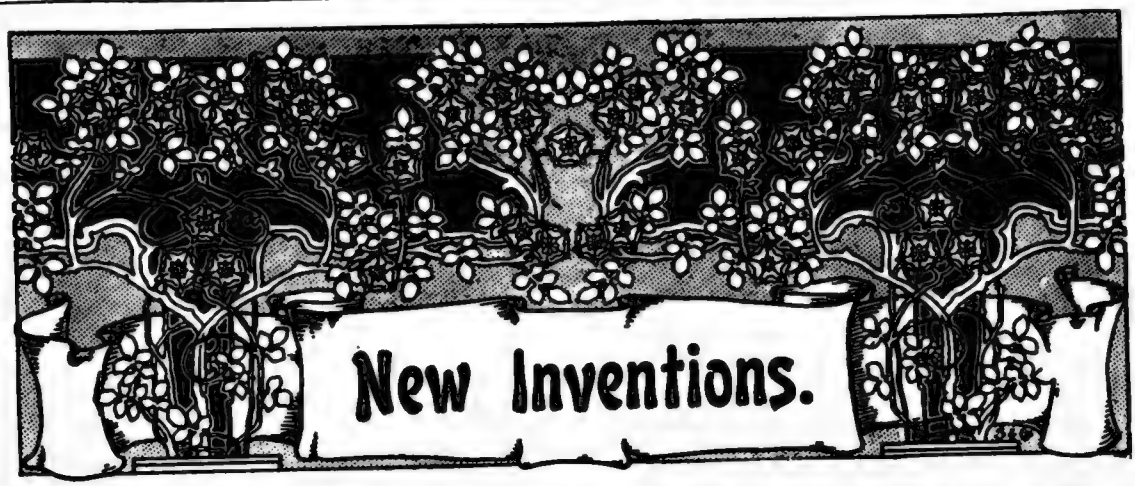


The following abridged description is specially drawn for THE OPTICAL LANTERN by Messrs. Hughes & Young, Patent Agents, 55/56, Chancery Lane, London, W.C., who will give advice and assistance free to our readers on all patent matters.

No. 21,295. Photography. M. NIELL, 153, West Twenty-third Street, New York, U.S.A.

Cameras; lenses and lens fittings; roller slides; shutters.—A pocket camera is made in the form of a watch, comprising a roller slide, shutter, and registering apparatus. In Fig. 3, the neck 3 is shown carrying the lens 4 and its cap 5. Movable across

FIG. 3.

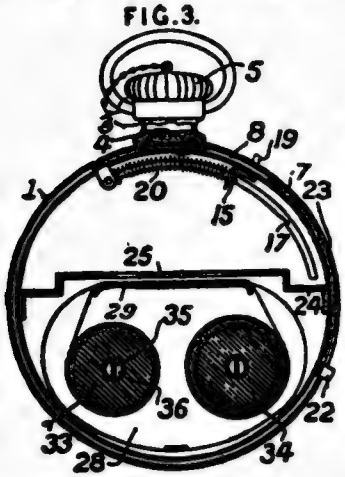
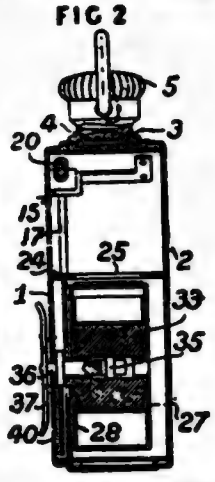


FIG 2

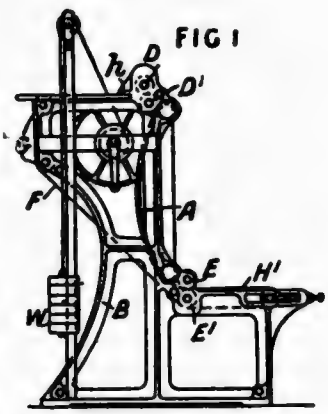


the opening of the lens is a shutter with its opening 8. To make an instantaneous exposure, the end 22 of the shutter is moved round along the slot 23 till it engages against the end of this slot. This movement compresses the spring 20; the cap 5 is then removed and the finger 19 pressed, releasing the shutter, of which the opening 8 passes across the lens tube. To make a time exposure, the shutter is moved till the shoulder 17 engages with the catch 15, and so holds the opening 8 opposite the lens tube as long as required. The exposure is terminated by pressing the finger 19, which enables the spring 20 to carry the shutter back to its normal or closed position, shown in Fig. 3. Extending across the inside of the case is the partition 24, which is provided with an exposure opening 25. Within this partition are placed the rollers 33, 34 for the films. These rollers are mounted between two plates 27, 28, and the film passes over the front side of the plate 29. The take-up roller 33 has a cross-pin 35 designed to engage in a notch in the spindle 36, which is provided with the external handle 37, and so enables the films to be changed. The spindle 36 has a finger engaging with a wheel 40 carrying numbers which are seen through an opening in the flat side 1 of the casing, in this way registering the number of exposures made. The turning-handle 37 is provided with a spring, which prevents any backward movement of the rollers. The other flat side 2 of the casing is removable, thus permitting the renewal of the roller films.

Photography. B. J. Hall, 39, Victoria Street, Westminster.

Printing; Copying drawings and the like.—Tracings to be copied are passed over a bent glass surface together with the sensitized paper by feed-rollers which are driven mechanically. An endless band F is passed around a series of rollers comprising two feed-rollers D, D¹, from which it passes across the curved glass plate A to the discharge rollers E, E¹, and the guide-rollers G, one of these latter being adjustable to tighten the band F. The feed-rollers D, D¹ may be driven either by a falling weight W acting through an escapement, by which the rate of feed may be varied, or by an electromotor or other engine. The tracing and sensitized paper are introduced under the guide *h*, and are carried forward by the band F across the glass plate A, which is mounted between the standards B, and are discharged on the table H¹ formed by the band F. The Provisional Specification describes the use of a large transparent flexible covering between the glass and the tracing when copying small tracings or where great accuracy is required.

FIG 1



The Charles Urban Trading Co., Ltd.,

Have opened a branch office, with a full stock of latest films and instruments, at 46, Market Street, Manchester. This will enable showmen operating in the Northern counties to select the latest film productions by seeing them in the rooms of this enterprising firm. Mr. John G. Avery, who has been associated with Mr. Urban for many years, has charge of the Manchester branch.

W. Butcher & Sons' New Catalogue.

We are in receipt of the new Catalogue for 1906, issued from Camera House, which is one of the most comprehensive and complete compendiums yet brought to our notice. It gives in a neat and easily-understood manner an illustrated list of this firm's many wonderful productions. The cover itself is unique, and creates a desire for complete investigation of the contents, which consist of over 700 pages. The whole production is got up in an attractive manner, being well printed, and every department is fully illustrated. The general arrangement is most praiseworthy, each department being printed on different coloured papers, which, with the aid of a carefully compiled index, enables a customer to find in a moment any particular article required. Commencing with a list of useful business aids and information, we are introduced to the various sections, including cameras, camera sundries and fittings, lenses, shutters, camera cases and stands, enlarging lanterns and apparatus, lecture lanterns, generators, photographers' accessories and sundries, kinematographs and projecting lanterns, films, etc. In a brief notice we are unable to give greater detail, but we can safely recommend a perusal of Messrs. Butchers' Catalogue to all interested in photo or kinematograph apparatus. No lantern operator, photographer, or person connected with the profession should be without the useful and comprehensive book, which is over an inch and a-half thick.

"Photography for Novices."

This well-known handbook, written by Percy Lund, and published by Messrs. W. Butcher & Sons, has reached its fifth edition, and commands an ever-increasing sale. The new edition has been entirely rewritten, and the style is so simple, and the methods described so effective, that the veriest tyro cannot fail, by its aid, to gain a good measure of initial success in the art of photography. Theory has been eliminated as far as possible, and the advice and hints given are of a thoroughly practical nature. The whole gamut of operations having been carefully described, this useful book ends with a chapter entitled "Cyclopædia," in which photographic terms, so confusing to the amateur, are concisely and clearly explained. The total number published reaches 45,000, a fact in itself indicative of the high degree of excellence, and the estimation in which it is held by the photographic world.

"Photography in a Nutshell," by the Kernel,

Is another of the standard photographic manuals which hold its own amongst hosts of other rival publications. It is written by Lieut.-General H. P. Hawkes, C.B. The 1906 edition lies before us, and from this we learn that 78,000 copies have been printed, and that it has again been revised and brought up to date. The author acknowledges his indebtedness to Messrs. Taylor and Townsend, and to Lieut.-General F. Dawson, C.B., the latter of whom rendered great help in earlier editions. The frontispiece is from a photo block contributed by Messrs. Penrose & Co., and is remarkable because of the absence of the mechanical "dot" effect usually so apparent in this class of work. A special screen called the "metzograph," consisting of a glass plate with etched prismatic reticulations upon it was used instead of the ordinary ruled screen. The result surpasses all previous efforts we have seen to reduce the harsh appearance so generally in evidence. The

book is published by Messrs. Iliffe & Sons, 20, Tudor Street, E.C., and it is practically impossible to name any knotty point which is not elucidated within its pages.

A Photographer's Stop Clock.

The Welborne Piper Photographer's Stop Clock is a new patented invention just put on the market by Messrs. W. Butcher & Sons, of Camera House.

In the days of our youth it was our delight to record, by means of a machine, our "personal error." This instrument exhibited a flash of light, and directly it was observed we pressed a button, and the amount of time which elapsed between the flash of light and the pressure of the button was our "personal error." Photographers, when developing by the Watkin system, must get variable results merely from the operation of this "personal error." The stop clock will prove invaluable in rectifying all errors. It is first of all a handsomely made ordinary alarm clock, contained in a polished mahogany case. The illustration we give, however, shows it to contain attachments, dial, and other novel mechanism, which showed the ingenuity and clever thought the inventor has lavished upon it. It has a striking attachment, which causes the gong to sound once each minute, but, better still, a short interval of one second can be equally well adjusted. The possibility of mistakes is prevented by bringing into play the sense of sound as well as sight. A turn of a knob will cause the clock to stop when the second hand reaches zero, and by either pressing down the brass lever on the left side of the clock case, or squeezing the pneumatic bulb, the clock is immediately restarted. The object of this is that timing should always start from the zero point of the second hand to ensure absolute correctness. There is also another stopping lever attached, thus offering every facility for obtaining the desired results. The principal photographic uses are: Timing development of slides and prints in the dark room, in absolute darkness, by the factorial system, and timing exposures in combination with a shutter, or timing, toning, washing, and similar operaations, and, last but not least, ensuring uniformity of result. We have tested the contrivance and found it satisfactory, but hope to give a more detailed report by actual experience in our next issue.

The *Lancet* recently contained the following letter from a Dublin doctor, which will doubtless be interesting to our readers:- "A young lady, aged twenty-one years, consulted me with regard to what she called 'a sort of blindness.' The history was that up to the time she had witnessed a kinematograph display of about fifteen or twenty minutes' duration she had 'good vision and strong eyes,' but that when leaving the hall she experienced a difficulty in seeing objects, and felt as if she were entering a darkened room. This continued for two or three hours and then, as adaptation of the retina gradually took place, objects became more distinct. She had considerable headache, a sensation of dazzling, and spasmodic contraction of the eyelids. These symptoms remained for about twenty-four hours. On the following day there was slight eye pain, with considerable reduction of the visual acuity. The pupils were of medium size and the reaction was normal. I advised her to remain in a darkened room, to have the eyes gently massaged, and to take a hot bath. I gave internally bromide of ammonium. She wore tinted glasses for some days and is now quite recovered. The condition produced by exposure to excessive light is sometimes spoken of as blindness of the retina, anæsthesia of the retina, and neurasthenic asthenopia. 'Retinal electrocution' is the term Darier uses when writing of the cerebral and retinal shocks produced by the passage of an electric current through the upper part of the body and the head. This suggests to me the term 'retinal kinematocution' for the condition produced by the intense flashes of white light. Those who have witnessed these living-picture displays must have experienced that peculiar 'tiredness' of the eyes caused by exhaustion of the retina, and how gratifying it was to close the eyelids and thus relieve the strain. Until some improvement takes place in the mode of exhibiting these pictures and in rendering less intense the light, the public should be warned of the danger and advised to wear tinted glasses when looking at them, and each display should not exceed one minute."

— THE —

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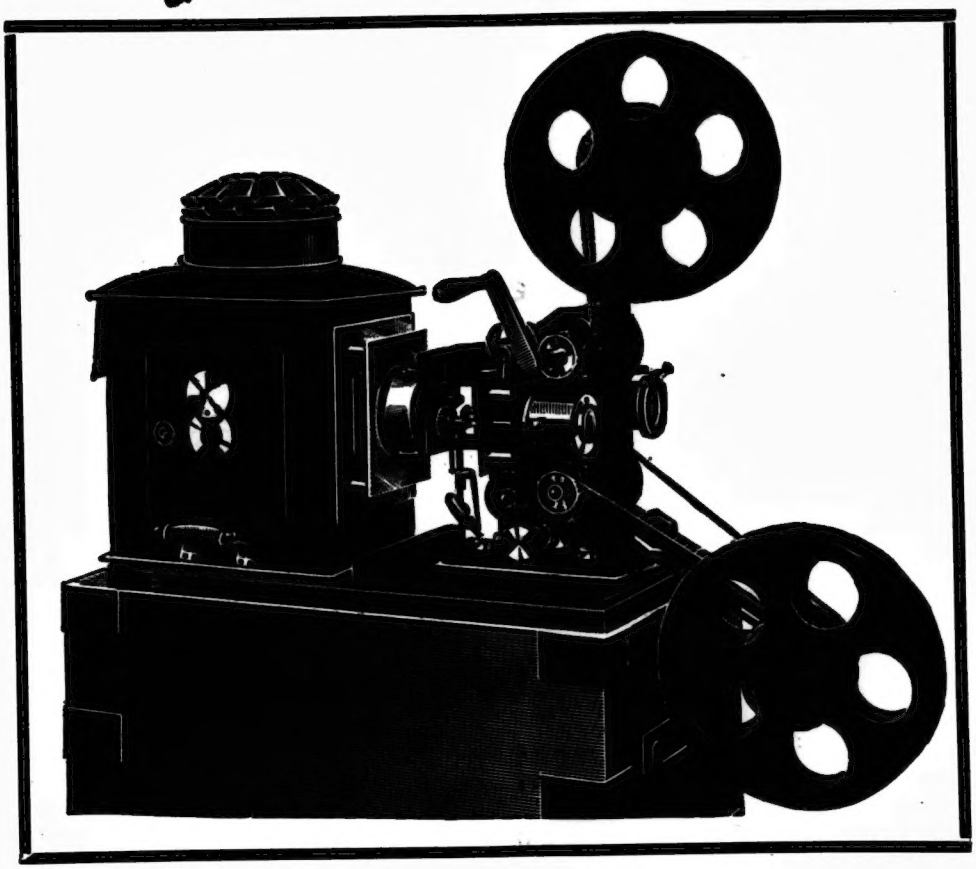

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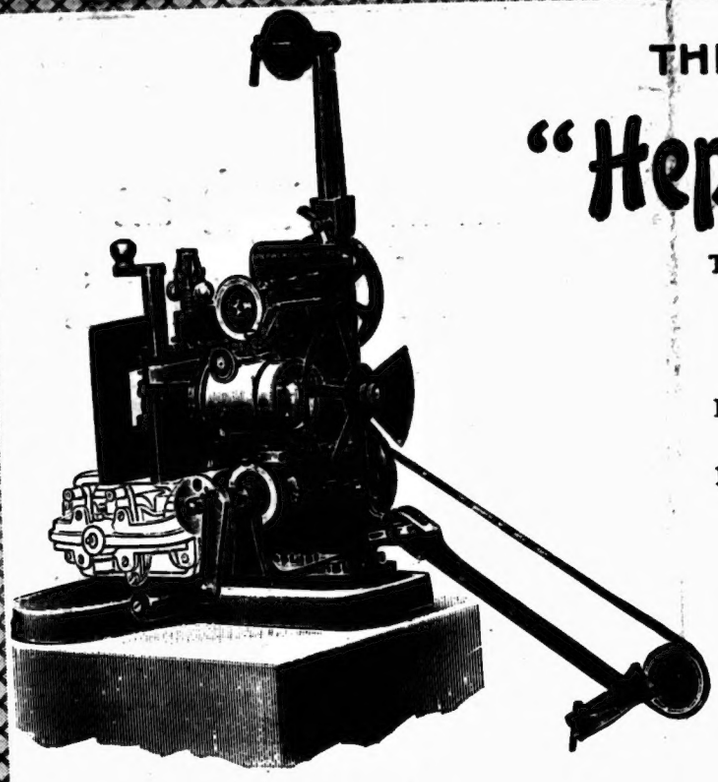

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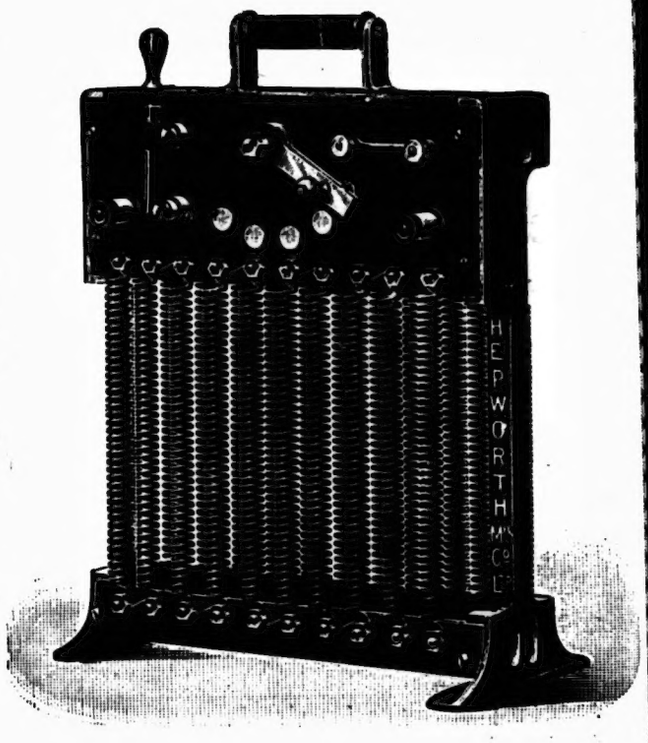

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